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**THE EFFECTS OF INTERVIEW LENGTH ON GENDER AND PERSONALITY  
RELATED BIAS IN JOB INTERVIEWS**

by

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**SUBMITTED TO SCRIPPS COLLEGE IN PARTIAL FULFILLMENT OF THE  
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## Abstract

The proposed study explores the cognitive miser approach to perception formation in job interviews, as well as factors that may motivate people to not act as cognitive misers. Personality type (introverted and extraverted) and gender are characteristics of people that are associated with many stereotypes (Heilman, 2001; Andersen & Klatzky, 1987), and can have a large influence on an employer's perception of an applicant, particularly when the employer is acting as a cognitive miser. It is hypothesized that in longer interviews, employers will be motivated to not act as cognitive misers, because they have more information about the applicant, have more of an opportunity to disconfirm any biases they may hold about the applicant, and experience greater liking toward the applicant. To test this, participants will conduct interviews with job applicants (who are actually confederates) and rate their perceptions of the applicants' expected job performance. Participants will either conduct a long or short interview with a male introvert, a female introvert, a male extravert, or a female extravert. Job applicants will provide participants with the same information, although the information about personality type and the amount of information given will depend on the condition. It is predicted that participants who conduct shorter interviews will rate the applicants in line with popular stereotypes that favor extraverts over introverts, and males over females. Conversely, participants in longer interviews will be motivated to thoroughly think through their evaluations of the applicants, and there will be no significant difference in their ratings of male extraverts, female extraverts, male introverts, and female introverts.

## The Effects of Interview Length on Gender and Personality Related Bias in Job Interviews

All of us, at some time or another, will most likely have to participate in a job interview. It is no surprise that a Google search of the phrase “job interview” yields approximately 106,000,000 results, which include links to web pages entitled “30 Things You should Never, Ever Say in an Interview”, “7 Interview Tips That Will Help You Get the Job”, and “Top 50 Job Interview Questions”, among others. There are thousands of books written about interviewing, and millions of tips and tricks that are utilized by prospective candidates to make a good impression, and ultimately be offered a job. Unfortunately, despite the extensive preparation one can do for an interview, there are some aspects of people that may lead employers to draw biased, subjective conclusions about them (Macan & Meritt, 2011), which may result in qualified people being rejected from jobs they deserve.

The process of obtaining a job generally includes the evaluation of an individual on several components, such as his or her resume, application, cover letter, and interview. Applicants are assessed upon many factors including their job experience, related skills, and education level. An employer then uses this information to form a perception of how the individual will perform in the workplace, and to determine if he or she should be hired. However, there are other factors that may influence an employer’s perception of an applicant. Gender and certain personality characteristics, for instance, may lead an employer to form an opinion about an applicant that is not necessarily based on accurate evidence. In addition, certain aspects of the interview may influence whether or not the employer shows more bias in his or her perceptions. The purpose of this research is to

investigate perception formation in job interviews, and the way in which perceptions of personality qualities, specifically introversion and extraversion, interact with gender, and lead to expectations about performance in the workplace. The researcher will also investigate factors, interview length in particular, that can lead to more accurate perception formations, and can impact whether or not an applicant is hired.

Research by Macan & Meritt (2011) indicates that an employment interview is one of the most frequently used techniques for selecting applicants. An employment interview is defined as “a social exchange between applicants seeking employment and interviewers gathering information on which to make selection decisions” (Macan & Meritt, 2011). In the course of a typical job interview, there are multiple opportunities for verbal and nonverbal behavior to be expressed, which both play a large role in forming an impression of an applicant, and can result in biased decisions that favor certain social groups over others.

Although there are laws that prohibit discrimination in the workplace, there is a large body of research indicating that certain characteristics of job applicants are associated with more negative interviewer evaluations. In particular, it has been discovered that candidates who are overweight, pregnant, LGBTQ, have a disability, or are of certain ethnicities, are frequently discriminated against in the interview process (Macan & Meritt, 2011).

Discrimination is a result of implicit and explicit biases, and can happen in all situations, but is particularly likely to happen in the context of a job interview, as it is generally a stranger-to-stranger interaction (Landy, 2008). When people are given the task of evaluating an individual with limited knowledge about him or her, it is often more

convenient for them to avoid engaging in effortful thought, in order to make faster judgments (Fiske & Taylor, 1991). This idea of humans as cognitive misers argues that we are reluctant to expend cognitive resources in order to understand the social world. Instead, we look for opportunities to save time and effort when forming perceptions, which results in us making quick judgments based on limited information. What's more, in order to conserve cognitive resources, we do not often look to correct these judgments.

Our perceptions of a person can be influenced by a variety of factors, including his or her physical appearance, behavior, displays of emotion, facial expressions, and verbal cues, such as tone of voice, intonation, and language. Nonverbal cues, such as body language, posture, and eye contact can shape our perceptions as well. Salient characteristics in particular, such as gender and race, will also draw our attention, and we are more likely to notice negative rather than positive features of a person (Gilovich, Keltner, Chen, & Nisbett, 2012).

After observing these many factors, people tend to act as cognitive misers, and save time and effort in their formation of perceptions about a person by using heuristics (Tversky & Kahneman, 1974). These intuitive mental operations allow us to quickly and efficiently make a variety of judgments that are based on general beliefs and ideas that we have about people. But although these judgments are made more quickly, they are not always accurate, and can result in biased processing of information (Ajzen, 1996). This results in the formation of invalid perceptions of people, and can have very negative consequences, such as denying someone a job for which they are qualified.

One of the most common heuristics used is the representative heuristic, which is the tendency to allocate a set of attributes to someone if they match the prototype of a

given category (Tversky & Kahneman, 1974). This heuristic makes it easier to put people into groups in order to better understand them. For example, if we meet someone who is slightly disheveled, wears glasses, has ink on his or her hands, and is carrying a notebook, we might assume that he or she is a writer, because these qualities fit our general idea of what a stereotypical writer looks like. In the context of a job interview, if someone has certain qualities that are indicative of a particular group of people, we may automatically attribute characteristics to him or her that are consistent with our idea of the group.

We also use the availability heuristic in our formation of judgments. This heuristic is the tendency to judge the frequency or probability of an event in terms of how easy it is to think of examples of that event (Tversky & Kahneman, 1974). For example, we might feel more nervous about flying somewhere if we have just heard about a plane crash.

The availability heuristic is illustrated in research by Schwarz et al. (1991). Participants were asked to recall six or 12 examples of when they had been either assertive or unassertive, and then to rate their own assertiveness. Participants who recalled six examples of when they had been assertive rated themselves as more assertive than participants who recalled 12 examples of when they had been assertive. The same pattern was found for participants who were asked to recall examples of unassertive behavior, such that those who recalled six examples rated themselves as less assertive than those who recalled 12 examples. This effect is due to the availability heuristic. Because it is more difficult to recall 12 examples than six examples of assertive or unassertive behavior, participants asked to recall more examples realized that examples

were not easily coming to mind. They therefore concluded that they were not very assertive or unassertive. The results of the study suggest that people are influenced by the ease of calling instances to mind when assessing the probability of an event, rather than just the content of the instance that comes to mind. In the case of a job interview, the interviewer may attribute qualities to an applicant based on the ease of which examples of these qualities come to the interviewer's mind, rather than objective evidence that is indicative of the qualities.

In addition to resulting in inaccurate perceptions, another significant shortcoming of the cognitive miser approach to judgments is that once we have made our judgments, we are often not motivated to ascertain the validity of them, and instead will look for evidence that confirms our initial perceptions. Research indicates that people have a tendency to evaluate and generate evidence in a manner that is consistent with their prior beliefs, opinions, and attitudes (Stanovich, West, & Toplak, 2013). For example, if at the beginning of an interview, the interviewer perceives the applicant as being rude, he or she will likely interpret many of the applicant's further behaviors as being rude, despite the fact that the applicant may in fact just be shy.

Furthermore, our quickly formed perceptions can cause us to act differently toward the objects of our perceptions, which influences the object to respond accordingly, thus confirming our perceptions of the object (Snyder, Tanke, & Berscheid, 1997). In a job interview, if an interviewer has an expectation about an applicant, this expectation will influence the interviewer's behavior toward the applicant, which will influence the applicant's behavior back to the interviewer, and end up confirming the interviewer's expectation.



This idea of self-fulfilling prophecies is illustrated in research in which men were either given a photo of an attractive woman or a less attractive woman. Each of the men was then told that they would talk to the woman pictured in the photo on the phone. Regardless of the picture they saw, all of the men talked to the same woman on the phone, and rated her friendliness and sociability. Unbiased observers also listened to the female portion of the phone call and rated the woman on different measures, including how enthusiastic she sounded, and how much she seemed to be enjoying herself. The researchers found that when the men believed they were talking to an attractive woman, they rated her as being friendlier and having better social skills than when they believed they were talking to a less attractive woman. The unbiased observers also rated the woman more positively in phone calls with men who believed she was more attractive. Because there is a stereotype about attractive people being friendlier, more fun, and kinder, among other positive qualities, the men had different expectations about the woman depending on her level of attractiveness, and consequently interacted differently with her when they believed that she was more or less attractive. The men's behavior led the woman to respond accordingly, and thus confirm their initial impressions of her. The results suggest that preconceived notions about people can affect future interactions, and produce behavior in others that reaffirms our perceptions of them (Snyder, Tanke, & Berscheid, 1997).

Personality type and gender are two qualities of people that can significantly impact how they are perceived, especially when the perceivers are acting as cognitive misers. Gender, in particular, is an important aspect of someone that can lead to the formation of inaccurate perceptions based on general assumptions about males and

females. This is partially due to the fact that in many cultures there are stereotypes about gender that favor men over women, and have proved very resistant to change (Dodge, Gilroy & Fenzel, 1995, as cited in Heilman, 2001). Men are often characterized as aggressive, forceful, independent, and decisive, while women are characterized as kind, helpful, sympathetic, and concerned about others (Heilman, 2001).

There are many theories about how these stereotypes came about. For instance, Alfred Adler theorized that all people are born into the world with a deep rooted sense of inadequacy, and that men in particular have a need to compensate for feelings of inferiority by acting in a hyper masculine way, which involves belittling and devaluing women (Adler, 1927, as cited in Ryckman, 2013). Another theory, by Karen Horney, asserts that men objectify and assert their supposed superiority over women because of their secret dread of them. Horney argues that as a result of the male dread of women, the stereotype of women as “infantile and emotional creatures and, as such, incapable of responsibility and independence” has been perpetuated (Horney, 1932).

Social role theory is a more popularly accepted idea about the origin of gender stereotypes. The theory, developed by Eagly (1987, as cited in Eagly & Karau, 2002), states that since men and women commonly engage in different types of activities, they are perceived as having different inner qualities that are required to engage in these activities. As the historical division of labor has been between women, who assume responsibilities at home, and men, who assume responsibilities outside of the home, the expectancies for each gender have grown to match these roles. As these expectancies are passed down to each new generation, the social behavior of each gender changes in accordance with their expectancies. As men are expected to play a more aggressive role,

they develop traits that are associated with agency, such as being independent, assertive, and competent. And as women are expected to play a more communal and nurturing role, they develop traits such as being friendly, unselfish, and expressive. Through the socialization processes, many individuals are encouraged to develop the skills and qualities that will facilitate their social gender roles (Eagly & Wood, 1991).

Eagly & Johnson (1990) state that these gender differences are flexible, especially for individuals who engage in many different social roles. However, since each gender is often associated with their historical social role, their capacity to do things outside of their role is questioned. Since women have historically occupied the home, their competence in the workplace is often questioned, as this area is assumed to be more suited to “masculine” qualities, particularly being agentic, independent, and assertive (Eagly, Karau, & Makhijani, 1995).

This idea is seen in research which indicates that people believe characteristics associated with managerial success are more likely to be held by men than women (Schein, 1973, as cited in Schein, 2001), which can lead to male candidates being favored over female candidates for the same position. In a study conducted by Schein (1994, as cited in Schein, 2001) participants rated males and females on the characteristics that most described successful managers (leadership ability, ambition, competitiveness, desires responsibility, skilled in business matters, competency, and analytical ability), and Schein found that women were rated lower than men on all items, except competency. Replications of this research finding in the United States, United Kingdom, Germany, China, and Japan indicate that this “think manager- think male” attitude may be a global phenomenon (Schein, 2001).

Even when depicted as managers, women are often characterized as less agentic than men. Although participants in a study by Heilman, Block, and Martell (1995) described female managers as more competent, active, and potent than women in general, female managers were still described as less competent, active, and potent than male managers. The only time female managers were not seen as inferior to male managers was when the female managers were depicted as highly successful.

In addition to descriptive stereotypes, which denote qualities that the genders have, prescriptive stereotypes denote differences in how men and women should act, and individuals are often viewed negatively when they violate these prescriptive stereotypes. Research shows that descriptions of nontraditional women are evaluated less favorably than those of traditional women (Haddock & Zanna, 1994), women who show agentic traits are often regarded as less appealing (Rudman, 1998), and competence in women increases the likelihood that they are perceived as cold (Wiley & Eskilson, 1985, as cited in Rudman, 1998).

Rudman (1998) conducted a study to explore perceptions of self-promotion, a skill that is useful in situations where individuals are not well known or are competing against others, such as in a job interview. Self-promotion is viewed as more “masculine”, as it involves being agentic and assertive. In the study, male and female participants were given the task of interviewing a woman and evaluating her as a partner for a computerized version of *Jeopardy!*, a fast-paced, competitive game. Participants were placed in an unmotivated or motivated condition. In the unmotivated condition, participants were given an acquaintance goal (AG) where they were instructed to treat the interview as a warm-up exercise and to conduct a relaxed interview. In the motivated

conditions, participants were either given an accuracy motivated (AM) goal, where they were asked to carefully evaluate the woman to ensure their success as a partnership, or an outcome dependent (OD) goal, where they were instructed to “hire” the woman as their partner in the game. In each of the interviews, the woman either acted self-promoting or self-effacing.

After the interview, participants completed several scales, which measured their impressions of the woman’s task aptitude, social attraction, hirability, and social desirability. The results indicated that when the woman acted in a self-promoting manner, participants in each condition rated her as having higher task aptitude. However, a larger amount of self-promotion was required to increase hirability ratings for male participants in the motivated, outcome dependent conditions, where participants were looking to “hire” the woman as their partner. Outcome dependent men also rated the self-promoting woman higher on social attraction and hirability scales, while accuracy motivated men favored the self-effacing woman. In contrast, women in the outcome dependent and accuracy motivated conditions rated the self-effacing woman as more socially attractive than the self-promoting woman. Furthermore, the majority of female participants favored the self-effacing woman in terms of hirability, and outcome dependent men rated the self-promoting woman higher than female participants did on the social attraction and hirability ratings.

Overall, the results suggest that self-promotion causes women to be viewed as more competent, but less socially attractive and less hireable, especially when perceivers are women, or men who are motivated by accuracy or have no motivation. Thus, it may be problematic for women to speak directly and assertively about their own skills and

qualifications, especially when being evaluated by other women. As self-promotion is generally necessary in the context of a job interview, the fact that women are looked down upon when engaging in this practice puts them at a significant disadvantage in the job hiring process.

Rudman's findings are consistent with role congruity theory (Eagly & Karau, 2002), which states that a group will be positively evaluated when its characteristics align with that group's typical social roles. This theory suggests that negative perceptions of women in the workforce, particularly those in leadership positions, are due to the fact that there is a discrepancy between stereotypical female characteristics and those associated with leadership. This can be seen in Eagly and Karau's research, which found that not only are female leaders perceived less positively than male leaders, but negative perceptions of women in leadership positions are more prevalent in environments where there is a larger discrepancy between female gender roles and the nature of the leadership position.

In addition to gender stereotypes resulting in general negative conceptions of women in the workforce, they also result in women's accomplishments being seen as inferior to men's, even when they are the same (Heilman, 1983, as cited in Heilman, 2001). Research has demonstrated a gender bias in the hiring process, such that when given the choice between two identical applicants of different genders, men are often seen as the better candidate (Davison & Burke, 2000).

Biernat & Fuegen (2001) explain this concept with the shifting standards model, which suggests that when we judge individual members of stereotyped groups on stereotyped dimensions, we compare them to within-category judgment standards, such

that “good” for a woman does not mean the same thing as “good” for a man. What’s more, there are lower minimum standards, but higher confirmatory standards for women. Applied to the hiring process, this model results in it being easier for women to make a short list of applicants, but harder for them to actually be hired (Biernat & Fuegen, 2001).

As illustrated by the preceding research, an individual’s gender can significantly effect how they are perceived, especially in the context of the workplace and the hiring process. Because gender stereotypes are so prevalent in society, when an interviewer is forming an impression of an applicant with limited knowledge about the applicant, the interviewer may rely on these gender stereotypes to help make quick judgments, rather than thinking through all of the pieces of evidence related to the applicant. However, past research has not explored how gender may interact with personality type to influence judgments. Personality type, in particular whether an individual is extraverted or introverted, can have a considerable influence on the formation of perceptions as well.

An individual’s perceived personality qualities are very important in the job hiring process. It has been discovered that some personality traits can predict job performance and other outcomes across many different occupations (Barrick & Mount, 1991). For instance, research indicates that agreeableness and conscientiousness predict job performance when accompanied with political skill (Blickle et al., 2008), and that emotional stability is a valid predictor of job performance across a range of different professions (Salgado, 1997).

Also, because people are drawn toward careers that are compatible with their ability, the majority of job applicants are likely to have similar intelligence levels, so personality becomes more salient and can be the deciding factor in who gets the job

(Lancaster, Colarelli, King, & Beehr, 1994, as cited in Tapor, Colarelli, & Han, 2006).

This is illustrated in research by Tapor, Colarelli & Han (2006), who conducted a study in which they presented Human Resources practitioners with information about a job applicant's performance on one of three constructs (cognitive ability, conscientiousness, or agreeableness), and had them rate each applicant on their *hirability*- the degree to which a job applicant possesses the knowledge, skills, abilities, and other relevant criteria needed to successfully perform a given job. They discovered that personality had a stronger effect than cognitive abilities on hirability ratings, and that applicants who had performed well on the construct of conscientiousness were considered the most hireable.

Although conscientiousness has been shown to be a trait valued by many employers, many other personality characteristics can influence perceptions of job applicants. Research has shown that, in line with our tendency to act as cognitive misers, people often make judgments about an individual based on their possession of certain personality traits, and will place individuals in social categories based on their understandings about these traits. They then use the social categories to predict the individuals' future behaviors, emotional reactions, attitudes, values, and other personality attributes (Cantor & Mischel, 1979, as cited in Andersen & Klatzky, 1987), which may influence judgments about job performance and hiring outcomes.

This practice of forming judgments based on the possession of specific personality traits is referred to as implicit personality theory, and involves automatic processes, which aid us in making impressions of people based on limited information. Specifically, once someone exhibits a certain characteristic, we assume that the person



also exhibits other traits that are linked to the characteristic, and use this information to form an overall impression of the individual (Gilovich, Keltner, Chen, & Nisbett, 2012).

Asch (1946) illustrated this concept in research in which two groups of participants were read a list of characteristics that belonged to an individual, and then were asked to describe their impression of the individual. Both groups were read a list of the same characteristics, except that the quality “warm” was included in Group A’s list, while the quality “cold” was included in Group B’s list. Consequently, Group A formed impressions that were much more positive than Group B’s impressions. For example, a participant in Group A described the individual as: “A scientist performing experiments and persevering after many setbacks. He is driven by the desire to accomplish something that would be of benefit”, while a participant in Group B described the individual as: “A rather snobbish person who feels that his success and intelligence set him apart from the run-of-the-mill individual. Calculating and unsympathetic.” These results suggest that the personality characteristic “warm” is associated with many other positive personality characteristics that “warm” individuals are assumed to possess, while “cold” is associated with negative characteristics that “cold” individuals are assumed to possess. Asch found that the same pattern emerged for several other qualities, such as “generosity”, “shrewdness”, “happiness”, “irritability”, “humor”, “sociability”, “popularity”, “ruthlessness”, “self-centeredness”, and “imaginativeness”.

Introversion and extraversion are two other qualities that may lead people to make assumptions about related qualities. Extraversion-introversion is a central dimension of most psychological theories about human personality. The terms extraversion and introversion were first proposed by Carl Jung in his theory of psychological types. He

referred to extraversion as “an outgoing, candid, and accommodating nature that adapts easily to a given situation, quickly forms attachments, and setting aside any possible misgivings, often ventures forth with careless confidence into an unknown situation”. In contrast, he referred to introversion as “a hesitant, reflective, retiring nature that keeps to itself, shrinks from objects, is always slightly on the defensive, and prefers to hide behind mistrustful scrutiny”. Jung believed that people are not purely introverted or extraverted, but that all individuals have both extroverted and introverted qualities (Jung, 1961, as cited in Ryckman, 2013).

Other research is consistent with Jung’s theory, and indicates that extraverts are usually enthusiastic and talkative, and are energized by being around other people, often in the context of large social gatherings, such as parties or community activities. Extraverts generally do not enjoy being by themselves for long periods of time. Conversely, introverts generally feel drained by being around other people for long periods of time, and often enjoy solitary activities, such as reading or hiking. Although introverts can be social, they have a tendency to be overwhelmed by too much social stimulation (Thompson, 2008).

Hans Eysenck’s three-factor model of personality also identifies introversion and extraversion as one of the major individual difference types most useful in describing personality functioning. Eysenck defined extraversion and introversion in a similar manner to Jung, identifying extraverts as sociable and impulsive individuals who like excitement and who are oriented toward external reality, and introverts as quiet, introspective individuals who are oriented toward inner reality and who prefer a well-ordered life (Eysenck & Eysenck, 1985, as cited in Ryckman, 2013).

According to Eysenck, introversion and extraversion are determined by heredity and originate from the cerebral cortex of the central nervous system. Environmental information is received by the sense organs, and then transmitted along neural pathways to the brain, where excitatory and inhibitory cortical processes result in either the facilitation or inhibition of behavioral and cognitive responses (Eysenck, 1965, as cited in Ryckman, 2013). Eysenck argues that extraverts have relatively strong inhibitory processes and weak excitatory processes. They also have stronger nervous systems, which results in a large capacity to tolerate stimulation. Thus, extraverted brains react more slowly and weakly to stimuli, which creates a stimulus hunger, or desire for strong sensory stimulation. They consequently seek excitement in their environment and are more likely than introverts to seek out social stimulation and take more risks.

In contrast, introverts have strong excitatory processes, weak inhibitory processes, and weak nervous systems, meaning that they only have a small capacity to tolerate stimulation. Because their brains react more quickly and strongly to stimuli, they have a relatively small threshold for stimulation, and find strong environmental stimulation aversive. Thus, they are more likely to spend time in contemplative or solitary activities, such as reading or writing.

Eysenck's inhibition theory explains many behavioral differences between introverts and extraverts. Because extraverts are stimulus hungry, they are more likely to prefer loud music and bright colors, and are more likely to use alcohol and other drugs, and to smoke. Extraverts also seek social contact at an earlier age than introverts, leading to well developed social skills, which aid them in communicating more with others and engaging in more social activities (Eysenck, 1965, as cited in Ryckman, 2013).

Because introverts and extraverts differ in the level of outside stimulation that they need to function well, they work differently. Extraverts finish work assignments quickly, make fast decisions, and are comfortable multitasking and taking risks. Conversely, introverts usually work more slowly and deliberately, preferring to thoroughly focus on one task at a time, rather than multiple tasks at once (Cain, 2012). Furthermore, extraverts are more likely to solve problems quickly, often sacrificing accuracy for speed, and will often give up if a problem seems too difficult or frustrating. Introverts will usually think before they act, stay on problems longer, give up less easily, and work more accurately (Matthews et al., 2003, as cited in Cain, 2012).

These different problem-solving styles have been observed in many studies. For example, in an experiment where 50 people were given a difficult jigsaw puzzle to solve, extraverts were more likely than introverts to quit halfway (Cooper & Taylor, 1999), and when given a series of printed mazes, introverts were not only more likely to solve the mazes correctly, but also to spend more time inspecting the maze before solving it (Howard & McKillen, 1990).

Although introverts and extraverts have different strengths and weaknesses, neither personality type is inherently better than the other. However, in the workplace, and in American society in general, extraverts are often seen as superior to introverts. This favorable bias toward extraversion can be seen in many studies. For example, talkative people are rated as smarter, better looking, more interesting, and more desirable as friends (Swann & Rentfrow, 2001), and fast talkers are rated as more competent and likable than slow talkers (Giles & Street, 1994, as cited in Cain, 2012).

In another study, college students were instructed to work together in groups to solve math problems, and then to afterwards rate one another's intelligence and judgment. The students who were given the highest ratings were those who spoke first and most often within the group, despite the fact that their verbal contributions and math SAT scores were not any better than those of the students who didn't talk as much (Paulhus & Morgan, 1997).

In addition to the perceived superiority of extraversion over introversion, there is also evidence indicating that each construct is often associated with many other qualities and characteristics, with those related to extraversion more positive than those related to introversion.

This is demonstrated in research by Andersen & Klatzky (1987), who had participants identify social categories related to the concepts of introversion and extraversion, and then to list all of the attributes that a person in each category would possess. They found that participants most frequently labeled extraverts as having the attributes "outgoing", "uninhibited", "self-confident", and "loud", and identified extraverts as belonging to the social categories of "comedian" with the attributes "funny", "friendly", "attention seeking", and "obnoxious"; the social category "politician" with the attributes "socially skilled", "power loving", "well-dressed", "argumentative", "knowledgeable", and "phony"; and the social category "bully" with the attributes "mean", "socially offensive, and "physically strong". Introverts, on the other hand, were most frequently labeled as having the attributes "withdrawn", "shy", "insecure", and "unattractive", and as belonging to the social group "brain" with the attributes "studious, "intelligent", "socially awkward", "physically weak", and "unattractive"; the social

category “neurotic”, with the attributes “insecure”, “nervous”, and “nutty”; and the social category “guru”, with the attributes “religious”, “meditative”, “earthy”, and “inspiring”.

As illustrated by Andersen & Klatzky, introversion and extraversion are associated with numerous stereotypes, with extraverted stereotypes generally more positive than introverted stereotypes. Despite the fact that neither extraverts nor introverts have been observed to do a better job in the workplace, with each personality type bringing different strengths and weaknesses, the stereotypes associated with each may lead to perceptions about an applicant that are based on preconceived notions about each type, rather than the applicant’s individual qualities. These stereotypes may ultimately influence perceptions of an individual’s job performance, and can determine whether an applicant is hired or not.

As the previous research illustrates, gender and personality type can significantly shape perceptions of people, particularly when the perceivers are acting as cognitive misers and using stereotypes and heuristics to inform their decisions. However, research suggests that people are not exclusively cognitive misers, and, under certain conditions, may be motivated to expend more cognitive resources in order to make accurate perceptions (Kruglanski & Webster, 1996).

Research by Macrae, Hewstone, and Griffiths (1993) indicates that there are a number of factors that can influence whether people will choose to use logical, time consuming cognitive strategies, or quick and easy strategies when forming judgments. For instance, people will be more likely to act as cognitive misers when they have limited time to come to a conclusion, as using heuristics saves time and often results in an adequate judgment. Another factor is cognitive load. If we have a lot on our mind, we are

less likely to devote cognitive resources to our perceptions, and more likely to use strategies that expend less cognitive energy. Furthermore, if a judgment is more important to us, we may feel more motivated to thoroughly think through our perceptions. Finally, if we don't have enough information to come to a logical conclusion, we often have no choice but to act as cognitive misers and form perceptions based on heuristics.

These conditions make sense when applied to many realms of social perception, but do not seem to thoroughly explain why discrimination happens in job interviews. In job interviews, employers generally have ample time to make employment decisions, are able to make decisions under low cognitive load, and should be very motivated to make an accurate employment decision in order to ensure the success of their company. Although there is no way for employers to know all of the information about an applicant, most jobs require a cover letter, resume, letters of recommendation, and references, among other requirements, that should give employers enough information to make a reasonably accurate decision and not have to rely on heuristics.

Thus, another factor will be explored that may motivate us to expend more cognitive resources in perception formation during job interviews. The researcher will investigate whether the length of time spent with someone in the course of a job interview influences perception formation. In particular, whether longer job interviews, where interviewers are encouraged to learn more about the applicant, result in less biased perceptions.

Although past research has not explored whether length of time spent with someone decreases our likelihood of acting as cognitive misers, when we spend more

time with someone we learn more information about them, and we are given more of an opportunity to disconfirm any biases we may hold about them. Thus, we have the capability to make judgments that are not based on heuristics. In addition, research indicates that familiarity with someone increases our liking of them (Zajonc, 1968), which may stimulate our desire to expend cognitive resources in our judgments of them.

The notion that more time spent with someone gives us more of an opportunity to disconfirm biases we may have about them can be seen in Gordon Allport's (1954) contact hypothesis. Allport argues that simply coming in contact with someone and interacting with him or her can reduce prejudice toward the person. This idea has been demonstrated in research which indicates that having a African American roommate can reduce automatic racial prejudice among White American college students (Shook & Fazio, 2008). Other research suggests that this reduced prejudice may be due to feelings of social connectedness to a member of a different social group, which inspires interest in the group's culture, and ultimately leads to less bias toward the social group (Brannon & Walton, 2013). When applied to a job interview, the contact hypothesis suggests that longer interviews lead to reduced bias in perception formation, as the interviewer has a greater chance of feeling connected to the applicant, and of reducing any prejudiced beliefs the interviewer has about the applicant. When we have more information about someone, and are given the opportunity to disprove biases we may hold about them, we have the ability to not act as cognitive misers, and to rely on factual evidence instead of heuristics to inform our decisions.

Not only does increased time with someone allow us to gain more information and reduce prejudice toward him or her, but it also often leads to increased liking toward



the person, because we are more familiar with him or her. The idea that familiarity influences our positive perceptions of people is referred to as the mere-exposure effect, and is a phenomenon by which people tend to develop a preference for people or things that they are more familiar with. The mere-exposure effect is illustrated in research by Robert Zajonc (1968), who discovered that when exposing participants to familiar stimuli, they rated these stimuli more favorably than similar stimuli that they had not been exposed to. This mere-exposure effect has been demonstrated in multiple other contexts, in both human and non-human participants (Rajecki, 1974, as cited in Zajonc, 2001). When applied to an interview, the research suggests that the longer an interviewer is exposed to an applicant, the more the interviewer will like the applicant, as the applicant becomes more familiar. When we like someone more we often have an increase in affective ties toward him or her (Smith et al., 2006), which may motivate us to expend cognitive resources to think through our perceptions about the person, instead of saving time and energy by making a judgment based on heuristics.

In order to explore the idea of increased interview length resulting in less biased judgments, the researcher will investigate stereotyping in interviews in the context of gender and personality types, and in particular whether longer interviews result in these constructs being less salient in impression formation.

This study is important because it may indicate that there are interview techniques that result in less biased perceptions of applicants. These findings can be applied to ensuring fairer evaluation of applicants, which can contribute to a workforce where the most qualified applicants are getting the jobs they deserve, rather than a workforce where certain demographics face rejection from jobs they are qualified to perform, due to

subjective beliefs held by interviewers. These findings could also give further insight into how introversion, extraversion and gender are viewed, and could be helpful for employers to know, so that they will be aware of interviewers' tendencies to make potentially inaccurate judgments based on personality type and gender. This knowledge could motivate them to be more conscious of evaluating applicants based on objective evidence, rather than on any biases they may hold.

To explore these judgments in job interviews, a study will be conducted in which participants will interview "applicants", who are actually confederates, for jobs. Half of the participants will conduct short interviews, while the other half will conduct longer interviews in which they will be instructed to "feel free to ask follow up questions or to ask for more details about the applicant's answers". In addition, the gender and personality type of the applicant will be manipulated such that each participant will either conduct a long or short interview with a male extravert, a female extravert, a male introvert, or a female introvert. The participants will then complete a measure about their expectations of the applicant's performance in the workplace.

It is hypothesized that participants who conduct longer interviews will show less bias in their perceptions of how the applicant would perform in the workplace, such that there will not be a significant difference in their ratings of male extraverts, female extraverts, male introverts, and female introverts. Alternatively, participants who conduct shorter interviews will show more bias in their perceptions of how the applicant would perform in the workplace, such that their perceptions will be consistent with stereotypes that favor men over women, and extraverts over introverts. Thus, participants in shorter

interviews will evaluate male extraverts most positively and female introverts most negatively.

### **Proposed Method**

#### **Design**

The study will use a 2 (interview length: long or short interview) x 2 (applicant gender: male or female) x 2 (applicant personality type: introverted or extraverted) between-groups factorial design.

#### **Participants**

Approximately 160 participants will be recruited. Participants will be people in the U.S. who are over the age of 18, and are working in Human Resources making hiring decisions at law firms. The researcher hopes to have a balanced racial and gender breakdown of participants. Participants will be recruited through newspaper ads, flyers, and social media, as well as by contacting law firms. Participants will be compensated by being entered into a raffle to win a \$50 Amazon gift card.

#### **Materials**

Participants will receive a description of the job for which the applicant is applying and the job applicant's resume. Participants will read that they will evaluate an applicant seeking an entry-level position as an immigration law attorney, whose responsibilities involve conducting research for the U.S. Customs Service. This

description was chosen because research has indicated that this position is perceived as only slightly more masculine than feminine (Fuegen et al., 2004), and seems to be a position that both introverts and extraverts could thrive in.

All participants will review the same resume, which indicates that the applicant (who is actually a confederate) is about to complete his or her law degree from a prestigious law school and has three years of relevant job experience. Half of the participants will review a resume with a male name, Kenneth Smith, and half will review a resume with a female name, Katherine Smith. These first names were chosen because they convey a nonspecific age (Kasof, 1993, as cited in Fuegen et al., 2004) and roughly equal intellectual competence (Mehrabian, 1990, as cited in Fuegen et al., 2004).

Participants will also be given a list of questions to ask applicants during the mock interview. To assess the effect of time on perception formation, half of the participants will be given a list of 20 questions to ask, while the other half will be given a list of 30 questions to ask. Participants with the shorter list will have 10 stereotype neutral questions to ask (Appendix A), while participants with the longer list will have 20 stereotype neutral questions to ask (Appendix B). These questions will ask about the applicant's job experience, education, related skills, and future goals, and will include questions such as, "Where do you see yourself in 5 years?", "Why do you want to work here?", and "What previous jobs have you held?" Regardless of the condition, the confederates will respond in the same way to each of the questions. The confederates' answers will be scripted and memorized in advance (answers shown in Appendices A and B).

There will also be interview questions about the applicant's personality type (Appendix C), and depending on the condition, the confederates will respond to these particular questions with answers that indicate that they are either introverted or extraverted (answers shown in Appendix C). In order to ensure that the strength of the personality type manipulation is constant across all conditions, there will be 10 personality related questions in both long and short interviews. These questions will include, "Are you introverted or extraverted?", "What do you like to do in your free time?", and "Do you tend to be quiet?"

After the interview, Blickle, et al.'s (2008) Job Performance Ratings Measure will be used to assess participants' perceptions of how the applicant would perform in the workplace. In the context of this research, performance in the workplace is defined as the extent to which an employee effectively and efficiently completes the tasks and work related activities expected of them, as well as the extent to which the employee exhibits a positive and cooperative attitude toward his or her work and his or her interactions with fellow employees. The Job Performance Ratings Measure has six items and asks participants to select a job performance rating anchor on a scale that ranges from 1, "a great deal better than other persons in a comparable position", to 5, "much worse than other persons in a comparable position", with "better than", "as good as", and "worse than" as intermediate anchors. Low scores on the Job Performance Ratings Measure indicate that the participant believes the applicant would perform well in the workplace, while high scores indicate that the participant does not believe the applicant would perform well. This measure has good reliability ( $\alpha = 0.80$ , as cited in Blickle et al., 2008).

Participants will also complete the Extraversion component of Johnson & Krueger's (2004) Personality Inventory Adjectives scale as a manipulation check, to assess if they perceived the confederates' introverted or extraverted personality type. The measure consists of three adjectives, and participants will rate the adjectives on five point scales indicating "how strongly you agree that each of the following describes the applicant" from 1, "strongly agree" to 5, "strongly disagree". Low scores on the scale indicate that the participant believes the applicant is very extraverted, while high scores indicate that the participant believes the applicant is not very extraverted. The scale is meant to reproduce the Extraversion component of the Big Five Model of personality (John, Donahue & Kentle, 1991), and consists of three adjectives that correspond with Extraversion. The scale has satisfactory scale consistencies for the Extraversion domain ( $\alpha = 0.78$ , as cited in Johnson & Krueger, 2004).

### **Procedure**

The study will be run in the lab and participants will be individually met by the experimenter. Upon providing informed consent, participants will be randomly assigned to conduct a long or short interview, and to interview a male or female confederate who is either acting introverted or extraverted. Thus, each participant will interview a male extravert, a female extravert, a male introvert, or a female introvert using a long or short interview. In order to control for individual differences that the male and female confederates possess which may influence participant responses, confederates will be selected that are of similar ages and similar levels of attractiveness. They will also be dressed the same during the study.

After providing informed consent, participants will be given a binder with the resume of an applicant, a description of the job they are interviewing the applicant for, and a list of questions they will be asking the applicant. They will be given 10 minutes to look over these materials. After participants have looked over the materials, the experimenter will introduce the “job applicant”, who is actually a confederate, and seat the confederate opposite the participant at a distance of five feet. The experimenter will then instruct the participant to begin the interview. In order to give participants who are conducting long interviews the opportunity to learn more about the applicant and have the chance to disconfirm any biases they may hold, participants in the long interview condition will also be told to “feel free to ask follow up questions or ask for more details about the applicant’s answers”. Participants who are conducting short interviews will not receive these instructions. The experimenter will then leave the room.

Following the interview, the confederate will exit the room, and the experimenter will return. Participants then will complete Bickel, et al.’s (2008) Job Performance Ratings Measure and Johnson & Krueger’s (2004) Personality Inventory Adjectives scale, which will serve as a manipulation check. Finally, participants will complete questions about their demographics and be fully debriefed.

### **Analytical Approach**

In order to assess whether participants who conduct short interviews will show more bias in their perceptions of applicants than participants who conduct long interviews, multiple statistical tests will be conducted.

First, a statistical analysis will be conducted to assess whether participants perceived the applicants' introverted or extraverted personality type. The researcher will run a Mann-Whitney U test on the participants' responses to the Personality Inventory Adjectives measure (Johnson & Krueger, 2004). This will determine if participants who interview extraverts have a different median rating of the applicants' extraversion level than participants who interview introverts.

Next, a Kruskal-Wallis one-way analysis of variance will be conducted to determine if participant expectations of applicant job performance, as measured by the Job Performance Ratings Measure (Blickle et al., 2008), differ across the eight groups that participants are randomly assigned to. These groups are:

1. A short interview with a male introvert
2. A short interview with a male extravert
3. A short interview with a female introvert
4. A short interview with a female extravert
5. A long interview with a male introvert
6. A long interview with a male extravert
7. A long interview with a female introvert
8. A long interview with a female extravert

If the Kruskal-Wallis one-way analysis of variance indicates that there are differences in expectations of job performance across the groups, a set of planned Mann-Whitney U tests will be conducted to determine the direction of the differences. The set of Mann-Whitney U tests that would be conducted are illustrated in the following table, where each number corresponds to the group that participants are assigned to.



Planned Mann-Whitney U Tests

Groups ↓	Groups →	1	2	3	4	5	6	7	8
1									
2		X							
3		X	X						
4		X	X	X					
5		X	X	X	X				
6		X	X	X	X	X			
7		X	X	X	X	X	X		
8		X	X	X	X	X	X	X	

As illustrated in the preceding table, a Mann-Whitney U test will be conducted between each of the eight groups. Finally, the Bonferroni correction will be used to counteract the problem of multiple comparisons.

### **Ethics**

It is strongly believed that the benefits of this study outweigh the potential risks to participants, as all participants will be treated in accordance with the APA Ethical Principles on conducting research with human participants. What's more, the study is below the level of minimal risk, as participants do not encounter any more risk than they would on a typical day in the world. The participants, who are not from a protected population, will not be asked to provide any sensitive information, and are only asked to interview a "job applicant", who is actually a confederate. They will then be asked to

complete a scale about their expectations of the applicant's job performance in the workplace, as well as a scale about their perceptions of the applicant's level of extraversion. The scales do not ask about any sensitive issues or topics.

In order to keep the study in line with APA ethics, participation is voluntary, as no one will be forced to partake in the study against their will, and participants can leave the study at any time during their tasks. What's more, the data collected will be anonymous and confidential. The researcher will ensure this by not having participants write their names on any of the scales they complete, and not saving any data in association with participant identity.

The study does involve deception, but only because the researcher is concerned that if participants know that the "job applicants" are actually confederates who are part of the research lab, they may attribute different qualities to the applicants based on any assumptions they may hold about this job position. The deception will be revealed during the debriefing of the study, and although the researcher does not anticipate strong reactions to the deception, information about counseling services will be provided that participants may utilize if need be.

Not only is the study below the level of minimal risk for participants, but there are also several benefits of the study. Participants will be compensated by being entered in a raffle to win an Amazon gift card. In addition, the knowledge gained may imply that certain interview techniques lead to less biased perceptions of applicants, which may be applied to ensuring fairer evaluation of job applicants and reducing discrimination in the workplace. The knowledge gained from the study may also benefit the fields of social psychology, personality psychology, and industrial-organizational psychology, as it may

provide further insight into how perceptions are formed, as well as how certain personality characteristics are viewed in the workplace.

Overall, the proposed study is ethical, and the numerous benefits of the study outweigh the potential risks to participants.

### **Expected Results**

It is predicted that the results of the manipulation check will indicate a difference in participant ratings of applicants' extraversion levels, as measured by the Personality Inventory Adjectives measure (Johnson & Krueger, 2004), depending on whether participants interviewed an introvert or an extravert. Because 10 questions in each of the interviews ask about the applicant's personality type, and the confederates will give very straightforward answers, it is expected that participants who interview introverted applicants will perceive the applicants as having low levels of extraversion, while participants who interview extraverted applicants will perceive the applicants as having high levels of extraversion.

In addition, it is expected that the Kruskal-Wallis one-way analysis of variance will indicate that there are differences in expectations of job performance, as measured by the Job Performance Ratings Measure (Blickle et al., 2008), across the groups. Thus, the series of Mann-Whitney U tests will be conducted. The results off the Mann-Whitney U tests are predicted to indicate that participants who conduct short interviews have more biased expectations of applicants' job performance than participants who conduct long interviews. Thus, in short interviews, male applicants and extraverted applicants will be viewed most favorably, with male extraverts perceived most positively and female

introverts perceived most negatively. There is not a predicted significant difference in ratings of male introverts and female extraverts in short interviews. Conversely, in long interviews there will not be a significant difference in participant ratings of male introverts, male extraverts, female introverts, and female extraverts. The expected results are illustrated in the following table.

Expected Directional Effects as a result of the Series of Mann-Whitney U Tests

Groups ↓	Groups →	1	2	3	4	5	6	7	8
1									
2		1 < 2							
3		1 > 3	2 > 3						
4		n.s.	2 > 4	3 < 4					
5		n.s.	2 > 5	3 < 5	n.s.				
6		n.s.	2 > 6	3 < 6	n.s.	n.s.			
7		n.s.	2 > 7	3 < 7	n.s.	n.s.	n.s.		
8		n.s.	2 > 8	3 < 8	n.s.	n.s.	n.s.	n.s.	

As illustrated in the table, it is predicted that participants who conduct short interviews will form more biased perceptions, and be more likely to favor males over females, and extraverts over introverts. This is believed to be the case because in short interviews, participants are given less information about the applicant, will have had a shorter time period to disconfirm any biases they have about the applicant, and will have had less exposure to the applicant, so will likely have a lesser degree of liking toward him or her (Zajonc, 1968). Because of these factors, the participants will likely act as cognitive misers, and rely on stereotypes and biases in their formation of perceptions

about the applicants. Thus, their perceptions will likely be consistent with popular stereotypes that favor men over women and extraverts over introverts.

Alternatively, it is expected that participants who conduct long interviews will not have a significant difference in their ratings of male introverts, male extraverts, female introverts, and female extraverts. This is expected because participants will have been given more information about the applicant, will have had a longer time period to disconfirm biases they have about the applicant, and will likely have a higher degree of liking toward him or her due to their increased exposure to the applicant (Zajonc, 1968). Because of these factors, the participants will be less likely to act as cognitive misers, and more likely to expend cognitive resources to think through their evaluation of each applicant, instead of conserving cognitive resources by using heuristics to form their perceptions.

Overall, it is predicted that the data will indicate more biased decision-making in participants who conduct short interviews, than in participants who conduct long interviews.

### **Discussion**

It is predicted that the findings of this study will indicate that longer job interviews motivate interviewers to think through the objective qualities of each applicant, rather than to act as cognitive misers, and rely on biases and stereotypes when evaluating the applicants. Furthermore, interviewers will find gender and personality type differences more salient when conducting shorter interviews, and will use stereotypes associated with these constructs to inform their hiring decisions about job applicants. In

longer interviews, interviewers will have more information about the applicant, will have a greater opportunity to disconfirm any biases they hold about the applicant, and will experience greater liking and affective connection toward the applicant. These factors will result in less biased expectations of the applicant's job performance.

When applied to the real world, these findings would suggest that longer interviews, where the interviewer is encouraged to learn more about the applicant, lead to more thorough evaluation of applicants, and may contribute to fairer hiring decisions that are based on objective evidence rather than biases held by interviewers.

These results would be consistent with previous research, which indicates that we act as cognitive misers when forming perceptions, particularly if the object of perception holds low importance to us, and if we don't have enough information to come to a logical conclusion (Macrae, Hewstone, & Griffiths, 1993). In shorter job interviews, we have less time to develop liking and affective ties toward the applicant, so whether or not the applicant is hired may be less important to us. We also have less information about the applicant, so may not have enough information to form a rational conclusion, and may have no choice but to rely on heuristics in our perception formation. Thus, in shorter interviews we are more likely to be cognitive misers and to expend fewer cognitive resources in our perceptions of the applicant, resulting in an evaluation that is less thoroughly thought out and more based on stereotypes and heuristics.

However, in longer interviews, the increased time spent with the applicant motivates us to expend more cognitive resources in our evaluations of him or her, because we are more familiar with him or her and thus like the applicant more (Zajonc,

1968). We also have more information about the applicant, and have had more contact with the applicant, which leads to reduced prejudice toward him or her (Allport, 1954).

Despite the importance of these potential findings, this research paradigm has some limitations that may discount the conclusions we can draw based on any findings of the study. For example, because the confederates that are acting as job applicants will be different depending on the condition the participant is in, their individual differences may influence participant responses. Thus, the study may lack experimental control, as participants' perceptions of the expected job performance of the confederates may be shaped by factors other than interview length, gender, and personality type. In addition, the nature of the job that participants are interviewing applicants for may have an effect on their responses. Because the job of an immigration law attorney is perceived as slightly more masculine than feminine (Fuegen et al., 2004), males may be perceived more favorably regardless of the condition participants are assigned to.

Furthermore, the lab setting where the study takes place may not be comparable to environments where job interviews typically take place, as it is a more artificial setting. Thus, the study may lack mundane realism. The study may also lack experimental realism, as participants have no motivation to treat the experiment seriously, and thus may not behave in a way that is meaningful to the study.

Finally, the manipulation check may not accurately assess whether participants perceive the confederates' introverted or extraverted personality type, as the Personality Inventory Adjectives measure (Johnson & Krueger, 2004) is a measure that tests for levels of extraversion, and not of introversion. Although it is possible that perceptions of low levels of extraversion would indicate that the participant perceived the confederates'

introverted personality type, this may not necessarily be the case. Thus, the research design lacks an exact way of knowing if the manipulation was perceived.

Further research related to perception formation in job interviews could explore other factors that may motivate people to think through their evaluations rather than rely on heuristics. For example, the distance the applicant is seated away from the interviewer may have an effect on perception formation. In addition, researchers could investigate whether perceptions differ depending on the personality type and gender of the participant making the judgments. For instance, introverted interviewers may have more favorable perceptions of introverted applicants, and male interviewers may have more favorable perceptions of male applicants.

This study is important because it may indicate that there are interview techniques that result in less biased perception formation of applicants. These findings can be applied to providing fairer evaluations of commonly discriminated against applicants in interviews. Thus, the findings of this study may benefit society as a whole, because certain social groups may receive reduced prejudice in the hiring process. This may lead to a more productive and egalitarian workforce, as the most qualified applicants will hold jobs that they deserve, and will face reduced discrimination in the workplace.

This study could also give further insight into how introversion, extraversion and gender are viewed, and could be helpful for employers to know, so that they will be aware of commonly held biases toward these constructs, and may be motivated to put policies in place to correct for these biases. This knowledge may also raise awareness of prejudice toward extraverts, introverts, males, and females, which may motivate society in general to be more conscious of their evaluations of people. Implications of this



research could be applied to the fields of social psychology, personality psychology, and industrial-organizational psychology.

Overall, this study will help expand our knowledge of how people form judgments, and may identify ways of reducing bias in our evaluations. Job applicants, interviewers, employees, employers, and society in general may benefit from the findings of this research.

## References

- Ajzen, I. (1996). The social psychology of decision making. In E.T. Higgins & A.W. Kruglanski (Eds.), *Social Psychology: Handbook of Basic Principles*, 297 - 328.
- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Perseus Books.
- Andersen, S. M., & Klatzky, R. L. (1987). Traits and social stereotypes: Levels of categorization in person perception. *Journal of Personality and Social Psychology*, 53(2), 235-246. doi:10.1037/0022-3514.53.2.235
- Asch, S. E. (1946). Forming impressions of personality. *The Journal of Abnormal and Social Psychology*, 41(3), 258–290. doi:10.1037/h0055756
- Barrick, M.R. and Mount, M.K. (1991), The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1–26.  
doi: 10.1111/j.1744-6570.1991.tb00688.x
- Biernat, M. & Fuegen, K. (2001), Shifting standards and the evaluation of competence: Complexity in gender-based judgment and decision making. *Journal of Social Issues*, 57, 707–724. doi: 10.1111/0022-4537.00237
- Blickle, G., Meurs, J. A., Zettler, I., Solga, J., Noethen, D., Kramer, J., & Ferris, G. R. (2008). Personality, political skill, and job performance. *Journal of Vocational Behavior*, 72(3), 377-387. doi: 10.1016/j.jvb.2007.11.008
- Brannon, T. N., & Walton, G. M. (2013). Enacting cultural interests: How intergroup contact reduces prejudice by sparking interest in an out-group's culture. *Psychological Science*, 24, 1947-1957. doi: 10.1177/0956797613481607
- Cain, S. (2012). *Quiet: The power of introverts in a world that can't stop talking*. New York, NY: Random House, Inc.

- Cooper, C., & Taylor, R. (1999). Personality and performance on a frustrating cognitive task. *Perceptual and Motor Skills*, 88, 1384-1384, doi:10.2466/pms.1999.88.3c.1384
- Davison, H. K., & Burke, M. J. (2000). Sex discrimination in simulated employment contexts: A meta-analytic investigation. *Journal of Vocational Behavior*, 56, 225–248.
- Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, 108, 233-256.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573-598. doi:10.1037/0033-295X.109.3.573
- Eagly, A. H., Karau, S., & Makhijani, M. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Journal of Personality and Social Psychology*, 117, 125-145.
- Eagly, A. H., & Wood, W. (1991). Explaining sex differences in social behavior: A meta-analytic perspective. *Personality and Social Psychology Bulletin*, 17, 306-315.
- Fiske, S.T. & Taylor, S.E. (1991). *Social cognition (2nd ed.)*. New York: McGraw-Hill.
- Fuegen, K., Biernat, M., Haines, E. & Deaux, K. (2004), Mothers and fathers in the workplace: How gender and parental Status influence judgments of job-related competence. *Journal of Social Issues*, 60, 737–754. doi: 10.1111/j.0022-4537.2004.00383.x
- Gilovich, T., Keltner, D., Chen, S., & Nisbett, R. E. (2012). *Social Psychology* (Vol. 3). New York, NY: W. W. Norton & Company.

- Haddock, G., & Zanna, M. P. (1994). Preferring “housewives” to “feminists”: Categorization and the favorability of attitudes toward women. *Psychology of Women Quarterly*, 18, 25–52. doi: 10.1111/j.1471-6402.1994.tb00295.x
- Heilman, M. E. (2001), Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57, 657–674. doi: 10.1111/0022-4537.00234
- Heilman, M. E., Block, C. J., & Martell, R. (1995). Sex stereotypes: Do they influence perceptions of managers? *Journal of Social Behavior and Personality*, 10(6), 237–252.
- Horney, K. (1932). The dread of women. *International Journal of Psychoanalysis*, 13, 348-360.
- Howard, R., McKillen, M. (1990). Extraversion and performance in the perceptual maze test. *Personality and Individual Differences*, 11(4), 391-396, doi: 10.1016/0191-8869(90)90221-C
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- Johnson, W. & Krueger, R.F. (2004). Genetic and environmental structure of adjectives describing the domains of the Big Five Model of personality: A nationwide US twin study. *Journal of Research in Personality*, 38(5), 448-472.
- Kruglanski, A.W. & Webster, D.M. (1996). Motivated closing of the mind: “Seizing” and “freezing”. *Psychological Review*, 103, 263-283.

- Landy, F. J. (2008), Stereotypes, bias, and personnel decisions: Strange and stranger. *Industrial and Organizational Psychology*, 1, 379–392. doi: 10.1111/j.1754-9434.2008.00071.x
- Macan, T. & Merritt, S. (2011) Actions speak too: Uncovering possible implicit and explicit discrimination in the employment interview process. *International Review of Industrial and Organizational Psychology 2011*, 26 (eds G. P. Hodgkinson and J. K. Ford), John Wiley & Sons, Ltd, Chichester, UK.  
doi: 10.1002/9781119992592.ch8
- Macrae, C. N., Hewstone, M. & Griffiths, R. J. (1993). Processing load and memory for stereotype-based information. *European Journal of Social Psychology*, 23, 77–87.  
doi: 10.1002/ejsp.2420230107
- Paulhus, D.L. & Morgan, K.L. (1997). Perceptions of intelligence in leaderless groups: The dynamic effects of shyness and acquaintance. *Journal of Personality and Social Psychology*, 72(3), 581-91.
- Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counter- stereotypical impression management. *Journal of Personality and Social Psychology*, 74, 629–645. doi: 10.1037/0022-3514.74.3.629
- Ryckman, R. M. (2013). *Theories of personality* (10th ed.). Belmont, CA: Wadsworth, Cengage Learning.
- Salgado, J.F. (1997). The five factor model of personality and job performance in the European community. *Journal of Applied Psychology*, 82(1), 30-43.
- Schein, V. E. (2001). A global look at psychological barriers to women's progress in management. *Journal of Social Issues*, 57(4), 675-688.

- Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology*, 61(2), 195-202.
- Shook, N. J., & Fazio, R. H. (2008). Interracial roommate relationships: An experimental field test of the contact hypothesis. *Psychological Science*, 19, 717-723.
- Smith, E. R., Miller, D. A., Maitner, A. T., Crump, S. A., Garcia-Marques, T., & Mackie, D. M. (2006). Familiarity can increase stereotyping. *Journal of Experimental Social Psychology*, 42, 471-478.
- Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 35(9), 656-666. doi: 10.1037/0022-3514.35.9.656
- Stanovich, K. E., West, R. F., & Toplak, M. E. (2013). Myside bias, rational thinking, and intelligence. *Current Directions in Psychological Science*, 22(4), 259–264. doi:10.1177/0963721413480174
- Swann, W.B. & Rentfrow, P.J. (2001). Blirtatiousness: Cognitive, behavioral, and physiological consequences of rapid responding. *Journal of Personality and Social Psychology*, 81(6), 1160-1175, doi: 10.1037/0022-3514.81.6.1160.
- Tapor, D. J., Colarelli, S. M., & Han, K. (2007). Influences of traits and assessment methods on human resource practitioners' evaluations of job applicants. *Journal of Business and Psychology*, 21(3), 361-376. doi:10.1007/s10869-006-9033-6
- Thompson, E.R. (2008). Development and validation of an international English big-five mini-markers. *Personality and Individual Differences*, 45(6), 542–8. doi:10.1016/j.paid.2008.06.013

Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases.

*Science*, 185, 1124-1131.

Zajonc, R.B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and*

*Social Psychology*, 9(2), 1-27, doi:10.1037/h0025848. ISSN 1939-1315.

Zajonc, R.B. (2001). Mere exposure: A gateway to the subliminal. *Current Directions in*

*Psychological Science*, 10(6). doi:10.1111/1467-8721.00154.

Appendix A  
Short Interview Neutral Questions and Answers

1. Tell me about yourself.
  - a. Answer: I attended college on the East Coast and am about to finish my law degree. I'm very interested in becoming an immigration law attorney.
2. Why do you want to work here?
  - a. Answer: I am interested in immigration law, and feel that this position will teach me a lot, and allow me to apply what I have learned in law school and in my previous jobs.
3. What previous jobs have you held?
  - a. Answer: I have worked for several law firms doing entry- level work.
4. What were the responsibilities of your last position?
  - a. Answer: My responsibilities involved doing research and collecting data for cases that I was assigned to.
5. How have you enjoyed law school?
  - a. Answer: I have really enjoyed it. I am really looking forward to applying what I've learned and beginning my career as a lawyer.
6. When do you graduate from law school?
  - a. Answer: I graduate in 2 months.
7. How committed would you be to this law firm if we were to hire you?
  - a. Answer: Very committed. I would really love to work here.
8. Why do you want to be a lawyer?
  - a. Answer: I have always been very interested in the law. I have several family members that are lawyers, so I suppose I have had a lot of exposure to it. It is something that I really enjoy studying and practicing.
9. What do you know about this position?
  - a. Answer: I know that I will be working as an immigration law attorney, and primarily doing research for the U.S. Customs Service.
10. Where do you see yourself in 5 years?
  - a. Answer: I would like to be well established as an immigration law attorney and to have a large degree of responsibility on cases that I am working on.



Appendix B  
Long Interview Neutral Questions and Answers

1. Tell me about yourself.
  - a. Answer: I attended college on the East Coast and am about to finish my law degree. I'm very interested in becoming an immigration law attorney.
2. Why do you want to work here?
  - a. Answer: I am interested in immigration law, and feel that this position will teach me a lot and allow me to apply what I have learned in law school and in my previous jobs.
3. What previous jobs have you held?
  - a. Answer: I have worked for several law firms doing entry- level work.
4. What were the responsibilities of your last position?
  - a. Answer: My responsibilities involved doing research and collecting data for cases that I was assigned to.
5. How have you enjoyed law school?
  - a. Answer: I have really enjoyed it. I am really looking forward to applying what I've learned and beginning my career as a lawyer.
6. When do you graduate from law school?
  - a. Answer: I graduate in 2 months.
7. How committed would you be to this law firm if we were to hire you?
  - a. Answer: Very committed. I would really love to work here.
8. Why do you want to be a lawyer?
  - a. Answer: I have always been very interested in the law. I have several family members that are lawyers, so I suppose I have had a lot of exposure to it. It is something that I really enjoy studying and practicing.
9. What do you know about this position?
  - a. Answer: I know that I will be working as an immigration law attorney, and primarily doing research for the U.S. Customs Service.
10. Where do you see yourself in 5 years?
  - a. Answer: I would like to be well established as an immigration law attorney and to have a large degree of responsibility on cases that I am working on.
11. Would you be willing to relocate for this position?
  - a. Answer: Yes.
12. How did you hear about this position?
  - a. One of my professors has heard good things about your law firm and suggested I look into it.
13. What are your greatest professional strengths?
  - a. I am very driven, focused, and hard-working. I do what it takes to get the job done.
14. What are your weaknesses?
  - a. I have a hard time balancing work and life, and have been accused of being a workaholic.

15. Are you interviewing with any other law firms?
  - a. A few others, but working here is my first choice.
16. How do you deal with stress?
  - a. I try to take a step back and see the big picture in order to put things into perspective.
17. If you were to work here, could you see yourself staying here for a long time?
  - a. Yes, I'm very interested in this firm and would love the opportunity to start a career here.
18. What kind of salary are you looking for?
  - a. Around \$55,000, but I'm open to discussion.
19. What is your GPA?
  - a. 3.5 out of 4.0.
20. What kind of work environment do you prefer?
  - a. A pleasant environment where things get done and the atmosphere is not too lackadaisical.

Appendix C  
Personality Related Questions

1. Are you introverted or extraverted?
  - a. Introvert answer: I am introverted.
  - b. Extravert answer: I am extraverted.
2. What do you like to do in your free time?
  - a. Introvert answer: I enjoy reading, going on hikes, and listening to music.
  - b. Extravert answer: I enjoy going out with friends and going to concerts.
3. Do you tend to be quiet?
  - a. Introvert answer: Yes, I can be. I am generally reserved.
  - b. Extravert answer: No, not really. I am generally outgoing.
4. Do you consider yourself to be introspective?
  - a. Introvert answer: Yes, I am very reflective.
  - b. Extravert answer: I am generally not very introspective.
5. Are you more of a listener or a talker?
  - a. Introvert answer: I am generally more of a listener than a talker.
  - b. Extravert answer: I am generally more of a talker than a listener.
6. Do you prefer to work independently or on a team?
  - a. Introvert answer: I don't mind working on a team, but I feel I get my best work done when I work independently.
  - b. Extravert answer: I prefer to work on a team, as I feel energized by being around others.
7. Do you find yourself more energized by being around people or by engaging in solitary activities?
  - a. Introvert answer: I generally feel more energized when engaging in solitary activities.
  - b. Extravert answer: I generally feel more energized by being around people.
8. Do you ever find yourself overwhelmed by too much social stimulation?
  - a. Introvert answer: Yes, I enjoy being social, but too much can often be draining.
  - b. Extravert: No, I feel very energized by social stimulation.
9. Do you generally feel comfortable taking risks?
  - a. Introvert answer: I generally don't enjoy taking risks.
  - b. Extravert answer: I generally feel comfortable taking risks.
10. Do you enjoy extended periods of solitude?
  - a. Introvert answer: Yes, I feel energized when I'm alone and engaging in solitary activities.
  - b. Extravert answer: No, I prefer being around others for extended periods of time.



